Assessing and Evaluating Department of Defense Efforts to Inform, Influence, and Persuade

An Annotated Reading List

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Preface

This annotated reading list was developed over the course of the project "Laying the Foundation for the Assessment of Inform, Influence, and Persuade Efforts," which sought to identify and recommend selected best practices in assessment and evaluation from existing U.S. Department of Defense (DoD) practice, academic evaluation research, public relations, public diplomacy, and public communication including social marketing. This report is a supplement to two companion volumes, *Assessing and Evaluating Department of Defense Efforts to Inform, Influence, and Persuade: Desk Reference* and *Assessing and Evaluating Department of Defense Efforts to Inform, Influence, and Persuade: Handbook for Practitioners*.[1] It was developed at the request of a project stakeholder as a topical reading list to help increase the assessment and evaluation knowledge and expertise of relevant personnel through self-study. It should be of interest to those within DoD who wish to develop or expand their expertise on assessment and evaluation, especially with regard to information operations or inform and influence activities.

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[1] Christopher Paul, Jessica Yeats, Colin P. Clarke, and Miriam Matthews, *Assessing and Evaluating Department of Defense Efforts to Inform, Influence, and Persuade: Desk Reference*, Santa Monica, Calif.: RAND Corporation, RR-809/1-OSD, 2015; Christopher Paul, Jessica Yeats, Colin P. Clarke, Miriam Matthews, and Lauren Skrabala, *Assessing and Evaluating Department of Defense Efforts to Inform, Influence, and Persuade: Handbook for Practitioners*, Santa Monica, Calif.: RAND Corporation, RR-809/2-OSD, 2015.

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Introduction

The U.S. Department of Defense (DoD) lacks personnel with sufficient expertise in assessment and evaluation to meet growing demand. At the time of this writing in late 2014, numerous efforts were afoot to infuse sound assessment principles in doctrine and to expand assessment-related course offerings in the military-academic sector, but these efforts will take time to bear fruit.

This temporary gap extends to the evaluation and assessment of DoD efforts to inform, influence, and persuade. Congressionally mandated reporting requirements in this area have joined other imperatives for improved assessment, but a lack of qualified and experienced evaluation and assessment subject-matter experts (SMEs) continues to impede progress. To help fill this gap, the assessment team at the Joint Information Operations Warfare Center (JIOWC) provides assessment support to the combatant commands and other stakeholders. As part of a broader research effort aimed at improving assessment of efforts to inform, influence, and persuade, the JIOWC assessment team asked RAND to provide a reading list for self-study in this area. This reading list is meant (in the short term) to serve two purposes: first, to provide resources for new personnel on the JIOWC assessment team to cement and broaden their assessment and evaluation expertise, ensuring that they are ready to provide needed SME input to relevant stakeholders, and, second, to provide a general list of assessment resources with relevance to efforts to inform, influence, and persuade that can be made available to assessment stakeholders to support self-study and improve assessment expertise.

Annotated Inform, Influence, and Persuade Assessment and Evaluation Reading List

Evaluation, Assessment, and Measurement, General Principles

Resources in this section are foundational to assessment and evaluation, drawing on the best principles from academic evaluation research. Even those with years of practical experience conducting assessment should find these materials useful.

Peter H. Rossi, Mark W. Lipsey, and Howard E. Freeman, *Evaluation: A Systematic Approach*, 7th ed., Thousand Oaks, Calif.: Sage Publications, 2004.

This is the single best graduate textbook on evaluation and measurement. If you had to choose only one item on this list to read, this should be it. This book is accessible and comprehensible, yet comprehensive. It is the original source for "the hierarchy of evaluation," the nested approach to evaluation described in the volumes that accompany this annotated reading list. Of the 12 chapters, the first ten are particularly strong and useful.

Alan Clarke, *Evaluation Research: An Introduction to Principles, Methods and Practice*, London: Sage Publications, 2005.

This relatively short introductory graduate-level text on evaluation research discusses the different types and purposes of evaluation and demands that evaluation have a purpose—and that purpose is to support decisionmaking. Chapter 1 ("Understanding Evaluation"), chapter 2 ("Quantity and Quality—Paradigmatic Choices in Evaluation Methodology"), and chapter 3 ("Methods of Data Collection") are particularly valuable; later chapters offer case-study examples from further afield.

Harry P. Hatry, *Performance Measurement: Getting Results*, 2nd ed., Washington, D.C.: Urban Institute Press, 2007.

Hatry is considered the "pioneer" of methods to measure effectiveness in the public sector. The text provides a great overview of all steps in the evaluation process—from identifying the program's mission, objectives, customers, and trackable outcomes to finding the best indicators for each outcome, sources of data, and methods to col-

lect them. Note that "performance" in the title is not limited to "measures of performance" versus "measures of effectiveness" (and this is not a distinction the text is overly concerned with); rather, it covers measurement at all levels at which measurement is important.

UK Ministry of Defence, *Assessment*, Joint Doctrine Note 2/12, Shriveham, UK, February 2012, http://www.mod.uk/NR/rdonlyres/30D3468C-75B3-4FD9-944D-975D40E3DCAA/0/20120221jdn212_assessment.pdf.

This doctrinal document is an excellent application of evaluation research principles to the defense context that goes well beyond traditional defense-related approaches. It begins by extolling the importance of assessment, describes challenges to assessment (such as complexity, multiple stakeholders and interests, conflict between subjective and objective measures, and political imperatives), addresses the fundamentals of assessment, and offers step-by-step guidance for assessment design.

Amelia Arsenault, Sheldon Himelfarb, and Susan Abbott, *Evaluating Media Interventions in Conflict Countries: Toward Developing Common Principles and a Community of Practice*, Washington, D.C.: United States Institute of Peace, 2011, http://www.usip.org/files/resources/PW77.pdf.

This report is a summary of the proceedings of the 2010 stakeholder conference "Evaluating Media's Impact in Conflict Countries," held at the Caux Conference Center in Switzerland. It describes the "Caux Principles" developed by the stakeholder participants for improving the evaluation process. The principles are as follows:

1. Expand financial support for evaluation of media interventions in conflict countries.
2. Encourage flexible program and resource designs that are sensitive to changing conflict conditions.
3. Carefully select conflict-specific media indicators.
4. Engage and collaborate with local researchers familiar with conflict conditions.
5. Foster learning, sharing, and collaboration about evaluation.
6. Embed evaluation into the entire project's life cycle and beyond.
7. Promote realistic evaluation practices.
8. Work to promote greater clarity surrounding evaluation.

Issues related to a lack of transparency, sharing, and incentives for integrity and honesty are key themes throughout the report, including concerns about "survey fatigue."

Maureen Taylor, "Methods of Evaluating Media Interventions in Conflict Countries," paper presented at "Evaluating Media's Impact in Conflict Countries" conferences, Caux, Switzerland, December 13–17, 2010, http://www.global.asc.upenn.edu/fileLibrary/PDFs/taylorcaux2.pdf.

Prepared for the 2010 Caux conference on monitoring and evaluating media interventions, this short paper identifies and examines the five social science research methodologies that can be used in monitoring and evaluating higher-level media assistance programs in conflict environments: (1) content analysis, (2) Delphi panels, (3) focus groups, (4) network analysis, and (5) survey research.

The Better Evaluation Planning Tool, http://betterevaluation.org.

This evaluation resource portal organizes more than 200 evaluation options in a seven-cluster framework called the Rainbow Framework (manage, define, frame, describe, understand causes, synthesize, and report and support use). There are many useful materials here, starting with the framework itself.

Michael Quinn Patton, *Qualitative Research and Evaluation Methods*, 3rd ed., Thousand Oaks, Calif.: Sage Publications, 2002.

This book provides a thorough review of the different types of qualitative data, the strengths and weaknesses of qualitative data, and research methods for collecting these data. In addition, it briefly describes a range of approaches to the analysis of qualitative data. Mastering this information would support the collection and use of qualitative data for assessment purposes.

Identifying and Developing Objectives

One key assessment principle that emerges in all strong thinking on the subject is the importance of clear objectives. While many of the items in the previous section make this point and offer related advice, this section features a single item almost wholly concerned with this issue.

Ralph L. Keeney, "Developing Objectives and Attributes," in Ward Edwards, Ralph F. Miles, Jr., and Detlof von Winterfeldt, eds., *Advances in Decision Analysis: From Foundations to Applications*, New York: Cambridge University Press, 2007, pp. 104–128.

This sometimes overly academic chapter recognizes that specifying objectives is not always as easy as it seems it should be and offers advice for getting from values to objectives, and for the qualities those objectives should have (complete, nonredundant, concise, specific, and understandable). It also describes a somewhat practical procedure for

working with SMEs and stakeholders to refine objectives, working iteratively between organizational values and specific objectives. Further, the chapter includes a process for developing measures (referred to as "attributes") for objectives.

Logic Models and Theories of Change

Having a theory of change—a set of assumptions or beliefs connecting the specific activities of a program or other effort to its objectives—is foundational for effective assessment. These works elaborate the role of a theory of change and describe a popular way to represent it, the logic model.

Sue C. Funnell and Patricia J. Rogers, *Purposeful Program Theory: Effective Use of Theories of Change and Logic Models*, San Francisco, Calif.: Jossey-Bass, 2011.

Regarded by evaluation experts as a valuable resource for program logic modeling, the text states that "program theory provides a coherent picture of how change occurs and how to improve performance. . . . [This book] shows how to develop, represent, and use program theory . . . to suit your particular situation."

W. K. Kellogg Foundation, *Logic Model Development Guide: Using Logic Models to Bring Together Planning, Evaluation, and Action*, Battle Creek, Mich., January 2004.

This excellent and relatively short monograph introduces logic modeling and walks the reader through the process of developing a theory of change logic model for a program.

Evaluation Capacity Building

Evaluation capacity building is an intentional process to increase individual motivation, knowledge, and skills to enhance a group or organization's ability to conduct or use evaluation.

Abraham Wandersman, "Getting To Outcomes: An Evaluation Capacity Building Example of Rationale, Science, and Practice," *American Journal of Evaluation*, Vol. 35, No. 1, March 2014, pp. 100–106.

This short article offers a frame and empirical results for operationalizing the evaluation capacity building model using the results-based approach of Getting To Outcomes, which is designed to enhance practitioner capacity. The Getting To Outcomes approach involves ten accountability-related steps, such as assessing needs and resources, setting goals and desired outcomes, and selecting evidence-based practices.

J. Bradley Cousins, Swee C. Goh, Catherine J. Elliott, and Isabelle Bourgeois, "Framing the Capacity to Do and Use Evaluation," in J. Bradley Cousins and Isabelle Bourgeois, eds., *Organizational Capacity to Do and Use Evaluation: New Directions for Evaluation*, New Directions for Evaluation series, No. 141, San Francisco, Calif.: Jossey-Bass, Spring 2014, pp. 7–23.

The authors review evolving conceptions of evaluation capacity building and put forward a guiding framework for organizational capacity for evaluation. The framework addresses not only the capacity to do but also the capacity to use evaluation. It covers such topics as utilization and evaluation theory, professional standards of practice, evaluation and organizational learning, and direct versus indirect capacity building.

Traditional Defense Assessment

There is a traditional and doctrinal way to assess military operations. There are many good principles espoused in this tradition, and it should not be overlooked. However, many of the foundational insights of evaluation research have failed to penetrate assessment doctrine. While this is a place to look for enrichment and comprehensiveness, it is not a source for all the answers.

P. T. Eles, E. Vincent, B. Vasiliev, and K. M. Banko, *Opinion Polling in Support of the Canadian Mission in Kandahar: A Final Report for the Kandahar Province Opinion Polling Program, Including Program Overview, Lessons, and Recommendations*, Ottawa, Ont.: Defence R&D Canada, Centre for Operational Research and Analysis, DRDC CORA TR 2012-160U, September 2012.

This report provides an excellent summary of best practices in survey research in support of counterinsurgency operations, drawn from the authors' experience managing the Kandahar Province Opinion Polling (KPOP) program. Lessons learned and recommendations fall into the following categories: polling program initiation, management, and oversight, including the roles and responsibilities of the various organizations involved in the survey program; survey questionnaire formulation and management; survey design and sampling strategy; data analysis; and the presentation and interpretation of results. A classified version of the report includes annexes on the results of the three KPOP polls conducted in 2011.

U.S. Joint Chiefs of Staff, *Commander's Handbook for Assessment Planning and Execution*, version 1.0, Suffolk, Va.: Joint Staff, J7, Joint and Coalition Warfighting, September 9, 2011.

This handbook offers a useful summary of the traditional military view of assessment, including much of what is taught as assessment in DoD. While the handbook has

many shortcomings (i.e., it skips over practical execution details and misses some of the critical insights from evaluation research), it provides a good foundation.

Evaluation of Public Communication

Public communication campaigns are efforts to inform, influence, and persuade, though not traditionally in the defense context. While not perfectly analogous, lessons for the evaluation and assessment of public communication certainly have merit for our purposes.

Thomas W. Valente, *Evaluating Health Promotion Programs*, Oxford, UK: Oxford University Press, 2002.

Valente provides an excellent review of designs and methods used to evaluate the performance and effectiveness of public communication campaigns. Drawing from years of experience conducting evaluations of large health promotion programs in the developing world, the concepts and best practices described in the text are highly relevant to the circumstances that DoD practitioners are likely to encounter in assessing information operations (IO). It is written with the level of detail appropriate for an evaluator with basic training in social science methods. The text includes chapters on theories of influence, techniques for measuring exposure, sampling strategies, statistical analysis, survey design, and issues unique to formative, process, and summative research. It includes detailed examples of survey instruments and other measures from several evaluations led by Valente.

Charles T. Salmon and Lisa Murray-Johnson, "Communication Campaign Effectiveness and Effects: Some Critical Distinctions," in Ronald Rice and Charles Atkins, eds., *Public Communication Campaigns*, 4th ed., Thousand Oaks, Calif.: Sage Publications, 2012, pp. 99–112.

This chapter provides evaluators with guidance for assessing commonly overlooked outcomes of campaigns, whether manifest or latent, intended or unintended. Campaign effectiveness is a multifaceted construct and is increasingly defined using relative rather than absolute standards. The authors make distinctions among various types of campaign effectiveness, including definitional effectiveness (e.g., getting a social phenomenon defined as a social problem or elevating it on the public agenda), contextual effectiveness (e.g., impact within particular contexts such as education versus enforcement versus engineering), cost-effectiveness comparison (e.g., prevention versus treatment, addressing certain problems over others), and programmatic effectiveness (e.g., testing campaign outcomes relative to stated goals and objectives). Further, they note that the phrases *campaign effects* and *campaign effectiveness* have often been used

interchangeably in evaluation reports, obscuring the fact that some campaigns induce harmful or unintended effects.

Thomas W. Valente and Patchareeya P. Kwan, "Evaluating Communication Campaigns," in Ronald Rice and Charles Atkins, eds., *Public Communication Campaigns*, 4th ed., Thousand Oaks, Calif.: Sage Publications, 2012, pp. 83–98.

This chapter includes sections on the following topics:

- the nature of campaign evaluation
- an evaluation framework that delineates the steps in the evaluation process (needs assessment, formative research, design, data collection, analysis, interpretation, and dissemination)
- summative evaluation research, covering theoretical considerations, study designs, levels of assignment, sample sizes, measures of campaign exposure, and measures of impact.

Valente and Kwan present six evaluation study designs to measure public communication outcomes: (1) postcampaign only; (2) pre- and postcampaign comparison; (3) pre- and postcampaign comparison and postcampaign-only control group; (4) pre- and postcampaign comparison and predetermined control group; (5) pre- and postcampaign comparison, with predetermined control group and post-only intervention group; and (6) Solomon four group. The authors delineate between *theory failure* and *program failure* and stress the importance of linking a validated theory to program implementation to avoid instances of theory failure.

Julia Coffman, *Public Communication Campaign Evaluation: An Environmental Scan of Challenges, Criticisms, Practice, and Opportunities*, Washington, D.C.: Communications Consortium Media Center, 2002, http://earlygradereading.unitedway.org/sites/default/files/files/Public%20 Communication%20Campaign%20Evaluation.pdf.

This report examines public communication evaluation practices and challenges and includes sections on relevant theory, outcomes, and useful methods for designing evaluations. Coffman distinguishes among four types of evaluation in two broad categories: "front-end" evaluations (formative) and "back-end" evaluations (process, outcome, and impact evaluations). Outcome evaluations measure "effects" that come about in the target population as a result of the campaign and can include the following measures: knowledge/awareness, salience, attitudes, norms, self-efficacy, behavioral intentions, behavior, skills, environmental constraints, media change, and policy change. Effective methods for outcome evaluation include framing analysis and rolling sample surveys. Impact evaluations capture the long-term outcomes of behavior change and system-level outcomes. Impact evaluation methods include repeated measures, staged

implementation, natural variations in treatment, and self-determination of exposure. Chapter 3 (which addresses evaluation challenges and criticisms), chapter 4 (on campaign outcomes, measures, and evaluation methods), and chapter 5 (on opportunities for improving evaluation tools) are particularly useful.

Evaluation in Public Diplomacy

Public diplomacy also has a great deal in common with defense efforts to inform, influence, and persuade, along with applicable lessons.

Robert Banks, *A Resource Guide to Public Diplomacy Evaluation*, CPD Perspectives on Public Diplomacy, Paper 9, Los Angeles, Calif.: Figueroa Press, 2011, http://uscpublicdiplomacy.org/publications/perspectives/CPD_Perspectives_Paper%209_2011.pdf.

Written by the former diplomat-in-residence at the Annenberg School's Center on Public Diplomacy at the University of Southern California, this guide offers one of the most comprehensive set of public diplomacy evaluation resources available. Relevant sections include "The Administration of PD [Public Diplomacy] Evaluation," "The Evaluation Process," "PD Metrics in the U.S. Government," "Cultural Programming," "Information Campaigns and Media Agenda Setting," "New Media," "PD and PR: The Private Sector as a Model for PD Practitioners," and "PD, Polling, and Audience Research."

NATO Joint Analysis and Lessons Learned Centre, *A Framework for the Strategic Planning and Evaluation of Public Diplomacy*, Lisbon, Portugal, 2013, http://www.jallc.nato.int/newsmedia/docs/A%20Framework%20for%20the%20Strategic%20Planning%20and%20Evolution%20of%20Public%20Diplomacy.pdf.

This report provides a thorough description of the concepts involved in public diplomacy evaluations, which are applicable to evaluations in other areas, especially the assessment of efforts to inform, influence, and persuade. It briefly discusses logic models, strategic planning, reporting, and research methods. It is a thorough guide that may assist individuals in DoD in the design and implementation of diverse efforts.

Assessment in Advertising, Marketing, and Public Relations

Frankly, much of the instructional material on measurement in marketing and public relations is only tangentially useful for the assessment of government efforts to inform, influence, or persuade because of its business/bottom-line focus and its general opacity. There are some good ideas, and some can be translated and applied, but most of the

literature is not directly applicable. There is still material worth reading, but the readings in this section may be given a lower priority.

Paul W. Farris, Neil T. Bendle, Phillip E. Pfeifer, and David J. Reibstein, *Marketing Metrics: The Definitive Guide to Measuring Marketing Performance*, 2nd ed., Upper Saddle River, N.J.: Pearson Education, 2010.

This traditional marketing measurement text argues, first, that measuring marketing is important to a firm and then discusses measurement practice. This text focuses primarily on showing the monetary value of marketing activities, a metric that makes sense in industry but is much less obviously relevant in government and military contexts.

Mark Jeffery, *Data-Driven Marketing: The 15 Metrics Everyone in Marketing Should Know*, Hoboken, N.J.: John Wiley and Sons, 2010.

This volume contains some good insights about data sources and the importance of assessing "squishy" (difficult-to-measure) things based on data. The actual metrics mostly lack defense analogies, however, and can be most appropriately characterized as highly business-focused.

David Michaelson and Don W. Stacks, "Standardization in Public Relations Measurement and Evaluation," *Public Relations Journal*, Vol. 5, No. 2, Spring 2011.

The authors argue that the consensus on standard measures for public relations (PR) performance has been elusive for two main reasons. First, there is a general belief that PR is somehow "different" and thus no standard is applicable, and, second, many communication consultants want to own proprietary or "black box" measures that cannot be independently replicated or tested for reliability and validity. The authors assert that the best approach to developing effective PR measurement includes the acceptance of measures that are valid for determining the impact of PR and research methods and that will produce reliable and replicable results. This means combining *what* one needs to know (standards) with *how* to collect data (best practices).

David Michaelson and Sandra Macleod, "The Application of Best Practices in Public Relations Measurement and Evaluation Systems," *Public Relations Journal*, Vol. 1, No. 1, October 2007.

This article argues that adhering to the "best practices" in PR assessment, measurement, and evaluation can be boiled down to the following three steps:

- setting clear and well-defined research objectives
- applying a rigorous research design that meets the highest standards of research methods and ensures reliable research results
- providing detailed supporting documentation with full transparency.

Don W. Stacks, *Primer of Public Relations Research*, 2nd ed., New York: Guilford Press, 2011.

The author states that how we define what we are measuring determines both how precise we will be in explaining what we have observed and which analytical tools are appropriate for the type of measurement we need.

David Michaelson and Toni Griffin, *A New Model for Media Content Analysis*, Gainesville, Fla.: Institute for Public Relations, 2005.

PR professionals currently rely on nine basic methods of content analysis: clip counting, circulation and readership analysis, advertising value equivalence, simple content analysis, message analysis, tonality analysis, prominence analysis, quality of coverage, and competitive analysis. The authors argue that these traditional methods have fundamental flaws. Instead of relying on these methods, a better approach would be to conduct content analysis to determine the presence of four factors: correct information, incorrect information, misleading information, and omitted information.

Russell H. Colley, *Defining Advertising Goals for Measured Advertising Results*, New York: Association of National Advertisers, 1961.

An interviewed SME recommended applying the Defining Advertising Goals for Measured Advertising Results framework as presented in this classic work to the assessment of defense efforts to inform, influence, and persuade. This application would involve first developing a model of influence with specific goals, then tying measures to those goals, measuring, and revising. The process is iterative, and one must be ready to revise goals, influence models, and measures based on results. According to the framework, information influences behavior through four steps: awareness, comprehension, conviction, and action.

Thinking Outside the Box: Truly Different Approaches to Measurement and Assessment

In addition to sources from the main schools of thought on evaluation and assessment, there are a few cats and dogs worth mentioning. We offer neither of these as "the answer" but simply as additional ways of thinking about the assessment challenge that might be useful in some contexts.

Douglas W. Hubbard, *How to Measure Anything: Finding the Value of "Intangibles" in Business*, Hoboken, N.J.: John Wiley and Sons, 2010.

This interesting and insightful book presents a novel paradigm for assessing literally anything. It suggests a totally different way of thinking about measurement: that mea-

surement is only of value if it improves your ability to make a decision. Focusing on uncertainty and risk, it argues that the value of assessment is to reduce the uncertainty about information on which decisions will be made. It contains two key insights that might help when the cost of a proposed assessment threatens to eclipse its value: (1) sometimes, an objectively poor measurement still decreases uncertainty and improves decisionmaking, and (2) many measurements do not add value because the cost of measuring them is greater than the benefit of reducing uncertainty for that decision.

Steve R. Corman and Kevin J. Dooley, *Strategic Communication on a Rugged Landscape: Principles for Finding the Right Message*, Phoenix, Ariz.: Consortium for Strategic Communication, Arizona State University, Report No. 0801, January 7, 2008, http://csc.asu.edu/wp-content/uploads/pdf/121.pdf.

The authors propose an evolutionary approach to determining what works in strategic communication—an iterative process that keeps what works and adds random variation. On the plus side, it is aimed at strategic communication, so it fits cleanly into the inform, influence, and persuade interest area. On the minus side, it is abstract, not always completely accessible, and not entirely practical. Interesting, regardless.

Evaluation and Assessment Case Studies and Examples

The items in this section are often less explicit about the evaluation or assessment principles being followed, but all are practical examples of evaluation or assessment. Further, all are examples from the inform, influence, and persuade domain, though mostly outside the defense sector.

Marie-Louise Mares and Zhongdang Pan, "Effects of Sesame Street: A Meta-Analysis of Children's Learning in 15 Countries," *Journal of Applied Developmental Psychology*, Vol. 34, No. 3, May–June 2013, pp. 140–151.

Mares and Pan examine the effects of children's exposure to international coproductions of *Sesame Street* through a meta-analysis of 24 studies, conducted with more than 10,000 children in 15 countries, predominantly in the developing world. The 24 studies included four experimental designs, seven quasi-experimental designs, and ten cross-sectional or panel surveys. Study results suggest that exposure to the programs significantly enhanced learning outcomes across three categories: cognitive outcomes, learning about the world, and social reasoning and attitudes toward out-groups. The results are "contextualized by considering the effects and reach of the program, relative to other early childhood interventions." The article is particularly useful to IO evaluators because it describes key elements of each study design. In doing so, it puts

forward a "quality index" to rate the quality of each study in terms of its design and methods—specifically, the extent to which the study included the following:

- random sampling or assignment at the individual level
- multiple indicators for key variables
- reliability assessment for key indexes
- quality control in field operations
- experimental or statistical controls
- a strong basis for causal inferences (panel design, between-group or pre/post experimental design).

Joyee S. Chattarjee, Anurudra Bhanot, Lauren B. Frank, Sheila T. Murphy, and Gerry Power, "The Importance of Interpersonal Discussion and Self-Efficacy in Knowledge, Attitude, and Practice Models," *International Journal of Communication*, Vol. 3, 2009, pp. 607–634.

This article illustrates the use of structural equation modeling for assessing effects and for teasing out the relative contributions of various mediators of behavioral change associated with communication campaigns in the developing world. Chattarjee and colleagues used data from a survey of 834 sexually active men to assess the influence of exposure to a BBC program on awareness, attitudes, and behaviors toward HIV and AIDS. Respondents were matched based on gender, age, education, and location. Using structural equation modeling, the researchers were able to show that people exposed to the campaign had higher awareness and knowledge of HIV/AIDS-related issues and that knowledge change predicted attitudinal change, which predicted behavioral change.

Marie Gaarder and Jeannie Annan, *Impact Evaluation of Conflict Prevention and Peacebuilding Interventions*, Policy Research Working Paper No. 6469, New York: World Bank Independent Evaluation Group, 2013.

Gaarder and Annan describe several quasi-experimental and experimental designs used to evaluate World Bank conflict prevention and peacebuilding interventions, including media interventions. Evaluations reviewed include the following:

- A group-based randomized experiment led by Elizabeth Levy Paluck evaluated a reconciliation-themed radio soap opera in Rwanda, which used matched-pair randomization at the level of listening groups. Communities were sampled according to political, regional, and ethnic criteria and then matched into pairs with individuals from a similar community on several observable characteristics, such as gender ratio, quality of dwelling, and education level. Then, "one community in each pair was randomly assigned to the reconciliation program and the other to

the health program. This stratification of sites helped to balance and minimize observable differences between the communities ex ante."

- A study led by Paluck used randomized pairwise matching within clusters to evaluate the impact of a radio soap opera when aired in conjunction with a talk show that emphasized conflict reduction through community cooperation. Paluck pairwise matched regions and randomly chose one treatment and one control region in each pair. While the radio program was aired in all regions in the experiment, the talk show following the radio show, designed to encourage listener reactions and discussions, was broadcast only in treatment regions. Paluck found that the listeners exposed to the additional talk show did discuss more but were also more likely to become intolerant and less likely to help outcast community members.
- A quasi-experimental evaluation by Michael Gilligan and colleagues exploited a random disruption in program implementation to construct a control group to evaluate the impact of a reintegration program on ex-combatants in Burundi. Three organizations were given contracts to administer the program, but one delayed providing services for a year for reasons apparently unrelated to predictors of effectiveness. To control for potential systematic differences between individuals in the control group, participants in the treatment and control groups were matched on individual characteristics, community characteristics, and propensity scores.

Sandra D. Lane, "Television Minidramas: Social Marketing and Evaluation in Egypt," *Medical Anthropology Quarterly*, Vol. 11, No. 2, June 1997, pp. 164–182.

The author describes how to tailor influence campaigns to a foreign audience and how best to evaluate these efforts. The issues examined here are public health concerns, but the evaluation practices are cross-cutting.

Jorge A. Montoya, Charlotte K. Kent, Harlan Rotblatt, Jacque McCright, Peter R. Kerndt, and Jeffrey D. Klausner, "Social Marketing Campaign Significantly Associated with Increases in Syphilis Testing Among Gay and Bisexual Men in San Francisco," *Sexually Transmitted Diseases*, Vol. 32, No. 7, July 2005, pp. 395–399.

This is a straightforward example of an evaluation of a social marketing campaign geared toward a specific audience (gay men) to convince them to take a health precaution (get tested for syphilis). IO assessment could benefit from similar evaluation techniques.

Joie Acosta, Laurie T. Martin, Michael P. Fisher, Racine Harris, and Robin M. Weinick, *Assessment of the Content, Design, and Dissemination of the Real Warriors Campaign*, Santa Monica, Calif.: RAND Corporation, TR-1176-OSD, 2012, http://www.rand.org/pubs/technical_reports/TR1176.html.

This RAND report evaluates a program designed to help veterans reintegrate back into society after deployment that also includes their families and loved ones in the process. The program aims to reduce the stigma of receiving help for common problems service members experience upon returning home from deployment. The evaluation rated the media and other content of the program on how well they reached their target audience and how they affected veterans' willingness to seek help, among other measures. The review of the methods used by the campaign, as well as its goals and objectives, might provide an interesting comparison for IO assessment.

Altai Consulting, *Afghan Media in 2010: Synthesis Report*, Washington, D.C.: U.S. Agency for International Development, October 13, 2010, http://www.altaiconsulting.com/docs/media/2010/Afghan%20Media%20in%202010.pdf.

This study, prepared for the U.S. Agency for International Development, was the first comprehensive media evaluation ever conducted in Afghanistan. The study endeavored to create a comprehensive picture of Afghan media, the media users, and their preferences and expectations and to measure media impact on public opinion and behavior. Research conducted from March to August 2010 combined quantitative and qualitative methodologies, including a literature review; direct observations; key informant interviews; 6,648 close-ended interviews in 107 districts, covering all of Afghanistan's 34 provinces; a daily weeklong audience survey of more than 1,500 individuals; approximately 200 qualitative, open-ended interviews; and ten community case studies.

British Council, *Trust Pays: How International Cultural Relationships Build Trust in the UK and Underpin the Success of the UK Economy*, 2012, http://www.britishcouncil.org/organisation/publications/trust-pays.

This report presents findings from research conducted for the British Council (the UK's cultural arm). The research compared the attitudes and self-reported behaviors of those who had contact with or exposure to British Council products and activities with a control group of individuals who did not have that exposure. It found that the amount of contact study participants had directly affected their trust in the UK.

Judy VanSlyke Turk and Linda H. Scanlan, *Evolution of Public Relations: Case Studies of Nations in Transition*, 3rd ed., Gainesville, Fla.: Institute for Public Relations, 2008.

This case-study volume offers examples of effective and ineffective public communication campaigns in developing countries.

Theories of Influence, Academic

As noted earlier, one of the foundations of evaluation is the importance of a theory of change. The literature on psychology, social psychology, and the study of influence includes several models of how behaviors and attitudes can be changed. While the connection to assessment is only tangential, being better informed about possible models for understanding influence will support better articulations of theories of change for specific programs and activities, which will support better assessment.

General Overview

William D. Crano and Radmilla Prislin, *Attitudes and Attitude Change*, New York: Psychology Press, 2008.

This book provides a thorough review of attitude measurement, including explicit and implicit measurements, attitude change, and the relationships among attitudes, beliefs, and behaviors. It reviews past issues and current directions of theory and research on attitudes and provides brief descriptions regarding multiple theories of relevance to attitudes and persuasion.

Robert H. Gass and John S. Seiter, *Persuasion: Social Influence and Compliance Gaining*, 5th ed., New York: Pearson Education, 2014.

This is a more traditional social psychology textbook that focuses on theories and concepts of relevance to persuasion. It goes into depth regarding many of the major theories of persuasion and addresses factors that can play a role in an effort's persuasive impact. It is perhaps most useful as a source for theories of change that can be considered when designing inform, influence, and persuade efforts and their assessments.

Inputs and Outputs in Communication Efforts

William J. McGuire, "McGuire's Classic Input-Output Framework for Constructing Persuasive Messages," in Ronald Rice and Charles Atkins, eds., *Public Communication Campaigns*, 4th ed., Thousand Oaks, Calif.: Sage Publications, 2012, pp. 133–146.

This chapter describes a series of communication factors that may be considered in efforts to influence an audience. It also proposes a rough sequence of factors that may be influenced by communication factors. This matrix suggests variables to either manipulate or measure when designing and implementing a persuasive effort.

Elaboration Likelihood Model and the Heuristic-Systematic Model

Alice H. Eagly and Shelly Chaiken, *The Psychology of Attitudes*, San Diego, Calif.: Harcourt Brace Jovanovich College Publishers, 1993.

Eagly and Chaiken present the "heuristic-systematic model" of information processing. The model states that individuals can process messages in one of two ways: heuristically or systematically. The implication of both the elaboration likelihood model and the heuristic-systematic model is that campaign strategists may design varied campaign stimuli that operate via peripheral and central routes to influence attitude change.

Social Learning Theory

Albert Bandura, *Social Foundations of Thought and Action: A Social Cognitive Theory*, Upper Saddle River, N.J.: Prentice-Hall, 1986.

According to Bandura's social cognitive learning theory, viewers exposed to messages depicting rewards for actions exhibited by credible role models are more likely to perform similar behaviors.

Processes of Opinion Change

Herbert C. Kelman, "Processes of Opinion Change," *Public Opinion Quarterly*, Vol. 25, No. 1, 1961, pp. 57–78.

This article describes a classic theory in social psychology regarding the processes that lead to opinion change. They include compliance, identification, and internalization. Each process involves unique methods for persuasion, suggesting that the desired goal of persuasion should guide the methods used.

Theory of Planned Behavior

Icek Ajzen and Martin Fishbein, *Understanding Attitudes and Predicting Social Behavior*, Upper Saddle River, N.J.: Prentice-Hall, 1980.

Ajzen and Fishbein's theory of reasoned action combines attitudes and norms with belief expectancies and values to predict behavioral intentions. Communication campaigns can influence beliefs about the likelihood of experiencing positive and negative outcomes and other components of the theory.

Icek Ajzen, Dolores Albarracin, and Robert Hornik, *Prediction and Change of Health Behavior: Applying the Reasoned Action Approach*, Mahway, N.J.: Lawrence Erlbaum Associates, 2007.

This volume extends the conceptual parameters of the theory of reasoned action into a theory of planned behavior, providing insight into the pathways of influence from campaign messages to behavioral outcomes.

Cognitive Dissonance

Eddie Harmon-Jones, David M. Amodio, and Cindy Harmon-Jones, "Action-Based Model of Dissonance: A Review, Integration, and Expansion of Conceptions of Cognitive Conflict," in Mark P. Zanna, ed., *Advances in Experimental Social Psychology*, Vol. 41, Burlington, Vt.: Academic Press, 2009, pp. 119–166.

This chapter provides an overview of the theory of cognitive dissonance, one of the major theories of attitude change in social psychology. It begins with a description of the theory and then moves to a description of experiments conducted to test the theory. It then describes recent advances and the role of individual and cultural differences in cognitive dissonance and related theories. Overall, this suggests a way to modify audience attitudes by first changing behaviors.

Knowledge, Attitudes, and Practices

Thomas W. Valente, Patricia Paredes, and Patricia R. Poppe, "Matching the Message to the Process: The Relative Ordering of Knowledge, Attitudes, and Practices in Behavior Change Research," *Human Communication Research*, Vol. 24, No. 3, March 1998, pp. 366–385.

This article provides an overview of the different processes that may contribute to attitude and behavior change. It notes that attitudes do not always precede behaviors and suggests that planners should consider what they would like to manipulate and how it will influence a particular audience.

Principles of Social Influence

Robert B. Cialdini, *Influence: Science and Practice*, Boston, Mass.: Allyn and Bacon, 2001.

In this fairly accessible examination of the psychology of compliance, the author describes factors that compel an individual or a group to agree with the requests of others.

Diffusion of Innovation Theory

Everett M. Rogers, *Diffusion of Innovations*, New York: Free Press, 2010.

Diffusion theory describes how new ideas and practices spread through interpersonal networks and the influential role played by opinion leaders. Opinion leaders tend to have greater exposure to media messages about a domain, such as health, and are more likely to exercise informal influence over the attitudes and behaviors of friends and family members. A second effects strategy is to initiate an indirect or multistep flow by disseminating messages to potential interpersonal influencers who are in a position to personally influence individuals of interest.

Other Recent Theories of Behavior Change

Joseph N. Cappella, Martin Fishbein, Robert Hornik, R. Kirkland Ahern, and Sarah Sayeed, "Using Theory to Select Messages in Anti-Drug Media Campaigns: Reasoned Action and Media Priming," in Ronald E. Rice, and Charles K. Atkin, eds., *Public Communication Campaigns*, 3rd ed., Thousand Oaks, Calif.: Sage Publications, 2007, pp. 323–342.

The integrative theory of behavior change applies a combination of the health belief model, social cognitive theory, and theory of reasoned action in the context of public communication campaigns.

B. J. Fogg, "A Behavior Model for Persuasive Design," *Proceedings of the 4th International Conference on Persuasive Technology*, New York: ACM, 2009.

This paper presents the Fogg Behavioral Model, in which behavior is a product of three factors or necessary conditions (motivation, ability, and triggers), each of which has subcomponents. For a person to perform a target behavior, the three factors must occur at the same moment.

James O. Prochaska and Wayne F. Velicer, "The Transtheoretical Model of Health Behavior Change," *American Journal of Health Promotion*, Vol. 12, No. 1, September–October 1997, pp. 38–48.

The transtheoretical model identifies subgroups based on their current stage in the process of behavior change. The stages include precontemplation, contemplation, preparation, action, and maintenance.

Michael D. Slater, "Integrating Application of Media Effects, Persuasion, and Behavior Change Theories to Communication Campaigns: A Stages-of-Change Framework," *Health Communication*, Vol. 11, No. 4, 1999, pp. 335–354.

The "stages-of-change" framework integrates the application of media effects, persuasion, and behavior change theories. Over time, campaigns target specific audience segments at different stages of progression, which is now more feasible with new technologies, such as interactive websites.

Approaches to Organizing and Understanding Efforts

P. Dolan, M. Hallsworth, D. Halpern, D. King, R. Metcalf, and I. Vlaev, "Influencing Behaviour: The MINDSPACE Way," *Journal of Economic Psychology*, Vol. 33, No. 1, February 2012, pp. 264–277.

MINDSPACE is a mnemonic developed to address contextual influences of behaviors. It summarizes the different elements that can contribute to changes in automatic processes. It also provides an overview of subtle methods that may be used in persuasion efforts.

Susan Michie, Maartje M. van Stralen, and Robert West, "The Behaviour Change Wheel: A New Method for Characterizing and Designing Behaviour Change Interventions," *Implementation Science*, Vol. 6, 2011, Article 42.

The behavior change wheel provides assistance in connecting the characteristics of efforts with the behaviors that the efforts seek to change. The wheel can assist planners in identifying a broad approach to consider as part of their persuasive efforts.

Theories of Influence, Applied

While many of the items in the previous section veer toward the dry, abstract, and academic, the items in this section are much more practically focused. All, however, remain at most minimally about assessment and more about planning and executing influence.

Andrew Mackay and Steve Tatham, *Behavioural Conflict: Why Understanding People and Their Motivations Will Prove Decisive in Future Conflict*, Essex, UK: Military Studies Press, 2011.

Written by British psychological operations personnel, this book argues both for the importance of noncombatants in contemporary and future conflict environments and for prioritizing behavioral outcomes over attitudinal outcomes when seeking to inform, influence, and persuade.

Chip Heath and Dan Heath, *Made to Stick: Why Some Ideas Survive and Others Die*, New York: Random House, 2007.

This book features a highly accessible discussion of factors that make ideas and messages "sticky" and durable.

Jarol B. Manheim, *Strategy in Information and Influence Campaigns: How Policy Advocates, Social Movements, Insurgent Groups, Corporations, Governments, and Others Get What They Want*, New York: Routledge, 2011.

This is a more strategic or operational-level look at influence, offering an introductory-level discussion of the various theories of behavior change and how they relate to an actual influence campaign.

Alan Kelly, *The Elements of Influence: Introducing the Playmaker's Standard: The New Essential System for Managing Competition, Reputation, Brand, and Buzz*, New York: Dutton Adult, 2006.

Intended for a business context (though the author argues that the framework generalizes to defense), this volume maps out a series of possible interactions between competitors and helps identify possible responses, called "plays." It is an interesting way of thinking, if nothing else.

Challenges to and Criticisms of Assessment Processes

Turning now back to assessment, the following resources point out challenges facing existing assessment practices. All provide useful cautions to keep in mind when developing assessments—cautions that should also be kept in mind when designing assessments of efforts to inform, influence, and persuade.

Jonathan Schroden, "Why Operations Assessments Fail: It's Not Just the Metrics," *Naval War College Review*, Vol. 64, No. 4, August 2011, pp. 89–102.

According to Schroden, the problems with operations assessments run much deeper than poor metrics. There is a "failure cycle" at work. Key challenges that need to be addressed include the following:

- identifying an advocate for assessments
- fixing planning and assessment doctrine so that it provides actual guidance on how to assess and not just a vocabulary or definitions (e.g., the difference between measures of performance and measures of effectiveness is interesting but not helpful, operationally)
- creating a military occupational specialty and formal course of instruction for operations assessment
- shifting thinking away from strictly quantitative and picture-based assessment products toward balanced, comprehensive, analytic narratives.

Stephen Downes-Martin, "Operations Assessment in Afghanistan Is Broken," *Naval War College Review*, Vol. 64, No. 4, Fall 2011, pp. 103–124.

Downes-Martin rails against junk arithmetic, flawed logic, overoptimisim, the collection of irrelevant data, and many other problems plaguing contemporary operations assessments. He offers several useful pieces of advice in response.

Tom Watson and Paul Noble, *Evaluating Public Relations: A Best Practice Guide to Public Relations Planning, Research, and Evaluation*, London: Kogan Page Limited, 2005.

Watson and Noble identify the following barriers to evaluation:

- previous working experience of practitioners
- lack of knowledge of research techniques
- the manager-technician dichotomy
- the practitioners' participation in decisionmaking
- lack of money or other budgetary issues.

Ben Connable, *Embracing the Fog of War: Assessment and Metrics in Counterinsurgency*, Santa Monica, Calif.: RAND Corporation, MG-1086-DOD, 2012, http://www.rand.org/pubs/monographs/MG1086.html.

This monograph lays out historical and contemporary challenges faced by efforts to quantitatively assess complex operations. The author is highly critical of inappropriate quantification and inappropriate aggregation and proposes a solution based on narrative assessments.

The U.S. Department of Defense has struggled to assess the progress and effectiveness of its efforts to inform, influence, and persuade audiences in support of key national security objectives. One reason is that it lacks personnel with sufficient expertise in assessment and evaluation. Although the department is making an effort to infuse sound assessment principles in doctrine and to expand assessment-related course offerings in the military-academic sector, these efforts will take time to bear fruit. These temporary shortfalls extend to the evaluation and assessment of DoD efforts to inform, influence, and persuade. To help fill the gap, RAND produced a reading list for self-study in best assessment practices across a range of sectors. The reading list has two purposes: to provide resources for new assessment personnel to cement and broaden their assessment and evaluation expertise and to serve as a general list of assessment resources that can be made available to assessment stakeholders to improve their assessment expertise. It supplements two companion volumes, *Assessing and Evaluating Department of Defense Efforts to Inform, Influence, and Persuade: Desk Reference* and *Assessing and Evaluating Department of Defense Efforts to Inform, Influence, and Persuade: Handbook for Practitioners.*

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